



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2013-0058]

Model Specifications for Breath Alcohol Ignition Interlock Devices (BAIDs)

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Technical Corrections; Proposed Changes and Request for Comments.

SUMMARY: NHTSA published a notice in the *Federal Register* on May 8, 2013, (78 FR 26849; NHTSA Docket 2013-0058) that revised the Model Specifications for Breath Alcohol Ignition Interlock Devices (BAIDs). The text of the notice contained some typographical and technical errors. This document describes and corrects those errors. This notice also proposes some additional changes to the BAID Model Specifications and requests comments on the proposed changes.

DATES: The technical corrections contained in this notice are effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Regarding the proposed changes contained in this notice, written comments may be submitted to this agency and must be received no later than **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments identified by DOT Docket ID Number NHTSA-2013-0058 by any of the following methods:

- *Electronic submissions:* Go to <http://www.regulations.gov>. Follow the online

instructions for submitting comments.

- *Fax:* 202-493-2251.
- *Mail:* Docket Management Facility, M-30, U.S. Department of Transportation, West Building, Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC, 20590.
- *Hand Delivery or Courier:* West Building, Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Eastern Time, Monday through Friday, except Federal holidays. Regardless of how you submit your comments, you should identify the Docket number of this document.

Instructions: For detailed instructions on submitting comments and additional information, see <http://www.regulations.gov>. Note that all comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided. Please see the “Privacy Act” heading below.

Privacy Act: Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review the complete User Notice and Privacy Notice for Regulations.gov at <http://www.regulations.gov/search/footer/privacyanduse.jsp>.

Docket: For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> at any time or visit the West Building, Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Eastern Time, Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: *For technical issues:* Ms. De Carlo

Ciccel, Behavioral Research Division, NTI-131, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590; Telephone number: (202) 366-1694; E-mail: decarlo.ciccel@dot.gov. *For legal issues:* Ms. Jin Kim, Attorney-Advisor, Office of the Chief Counsel, NCC-113, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590; Telephone number: (202) 366-1834; E-mail: jin.kim@dot.gov.

SUPPLEMENTARY INFORMATION: NHTSA published a notice in the *Federal Register* on May 8, 2013, (78 F.R. 26849; NHTSA Docket 2013-0058) that revised the Model Specifications for Breath Alcohol Ignition Interlock Devices (BAIIDs).

The notice that was published on May 8, 2013, went into effect one year later, on May 8, 2014. As explained in the 2013 notice, NHTSA considered whether it should evaluate ignition interlocks against the Model Specifications and publish a conforming products list (CPL) of devices that meet the specifications. For reasons described in some detail in the 2013 notice, NHTSA explained that it would delay rendering a decision about the feasibility and timing of a CPL until more information is available. NHTSA stated, in the notice, that it planned to conduct an assessment to determine whether establishing and maintaining a CPL is feasible, prior to making a decision.

Following publication of the 2013 notice, NHTSA initiated such an assessment. During the course of the assessment, NHTSA identified some aspects of the Model Specifications that may warrant clarification and/or modification. In addition, the agency received written communications from a number of organizations, including interlock providers, a testing laboratory, the Association of Ignition Interlock Program Administrators (AIIPA) and others, which brought some typographical and technical errors to the agency's

attention and/or sought clarification regarding some elements of the Model Specifications. These written communications and our responses have been placed in our public docket (NHTSA-2013-0058).

This notice describes and corrects the technical errors. These technical corrections will take effect immediately. This notice also proposes some revisions to the Model Specifications and requests comments on the proposed changes.

A. TECHNICAL CORRECTIONS (WHICH WILL TAKE EFFECT IMMEDIATELY)

The following changes are considered by the agency to be technical corrections. They will take effect immediately upon publication of this notice in the *Federal Register*.

Test 9. Tampering and Circumvention – e. Cooled 0.032 BrAC sample.

In the *Federal Register* notice published on May 8, 2013, Test 9e in the Model Specifications indicated that a .032 sample should be “cooled to ice temperature”.

This notice inserts the word “water” and the parenthetical “(0°C/32°F)” to clarify that the sample should be “cooled to ice water temperature,” which is 0°C (32°F).

Test 11. Altitude

In the *Federal Register* notice published on May 8, 2013, Test 11 in the Model Specifications was entitled “High Altitude” (78 FR 26865). However, it covers tests for both high altitude (low pressure) and low altitude (high pressure) conditions.

This notice corrects the title for the test to read, “Altitude.” The tests themselves have not been changed.

Test 16. Data Integrity and Format

In the *Federal Register* notice published on May 8, 2013, there was a reference under Test 16 to Appendix D (78 FR 26866). This was a typographical error. There were only two appendices to that notice, Appendix A and Appendix B.

This notice corrects that reference to Appendix B.

B. PROPOSED CHANGES (ABOUT WHICH WE REQUEST COMMENTS)

The following changes are being proposed by the agency. The agency requests comments on these proposed changes.

Test 8. Retest

Test 8 of the Model Specifications include a series of tests to simulate the BAIID functions that must operate in connection with retests once the vehicle has been started, including an indication to the driver that a retest must be taken. Two commenters requested clarification regarding this test. Specifically, their questions related to provisions requiring that the BAIID “indicate the need for a service call” and stating that “the BAIID must not allow the vehicle to start without a service call.”

As provided in Test 8 of the Model Specifications, a failed retest must trigger an alert to the driver and be flagged (recorded) on the interlock data logger. A missed retest also must be flagged (recorded) on the data logger. Conformance will require verification that alerts were made and that these events were recorded on the data logger.

In the *Federal Register* notice published on May 8, 2013, NHTSA expressed agreement with comments received that some decisions are programmatic in nature and should not be included in the Model Specifications. The Model Specifications are intended to apply to the performance of BAIID units, not the manner in which State and local

jurisdictions conduct their programs (78 FR 26851). Consistent with this sentiment, NHTSA had intended to remove certain references, including those providing for the need for a service call in Test 8, but the agency inadvertently left them in this subsection.

This notice proposes to correct the third sentence, in the first paragraph under Test 8b (78 F.R. 26864), which currently reads: “The BAIID must treat this test as a failed retest and prominently indicate the need for a service call.” This notice proposes to revise this sentence as follows: “The BAIID must treat this test as a failed retest and prominently alert the driver.”

Test 9. Tampering and Circumvention

One request for clarification related to elements of Test 9 in the Model Specifications, which test a BAIID's ability to prevent tampering and circumvention.

d. Warmed air sample

The commenter asserted that “a 12 oz Styrofoam coffee cup with a plastic lid can never get enough pressure. It would be better to mirror CNRC version of 0.5L PLASTIC cup with a lid.”

The purpose of Test 9d is to determine whether a warmed air sample (not from a person) can be pumped into a BAIID and cause an interlock-equipped vehicle to start. In the *Federal Register* notice published on May 8, 2013, NHTSA specified that a “foam coffee cup” with a “plastic lid” be used (78 FR 26864). However, the properties of the cup and lid are more important than the materials they are made from.

This notice proposes to clarify that the cup must be insulated, but it need not be constructed of Styrofoam; and that the lid must be secure, but it need not be constructed of plastic. This notice proposes to change the first sentence of the instructions for this test by

providing, “Prepare a 12-ounce insulated cup, fitted with a bubble tube inlet and a vent tube (rubber or tygon tubing), attached through a secure lid.”

f. Filtered 0.032 BrAC sample.

The commenter asserted that “The paper tube called for does not work. You can typically not build up enough pressure in the paper tube to trigger a sample at all, meaning the test is very easy to pass. If it were changed to any readily available material, it would be more effective to testing for the ability of the filtering material itself to filter out the alcohol and not just the fact that there is not enough pressure.”

In the *Federal Register* notice published on May 8, 2013, Test 9f in the Model Specifications provided, “Prepare a 1 to 2 inch diameter 3 to 5 inches long paper tube loosely packed with an active absorbent material ... [and using] cotton plugs to retain the absorbent [material] in the paper tube.” (78 FR 26864)

The purpose of this test is to determine whether an interlock-equipped vehicle would start if a person with alcohol in their system were to blow an air sample through a filter. NHTSA believes that using “a 1 to 2 inch diameter 3 to 5 inches long paper tube loosely packed with an active absorbent material ... [and using] cotton plugs to retain the absorbent [material] in the paper tube”, as described in the Model Specifications, will permit a sufficient test under this section. To clarify, a cardboard tube can be used in lieu of thinner paper goods, and absorbent material can include charcoal, kitty litter or other materials that are readily available. Moreover, this test is not designed to determine the ability of any particular material to filter alcohol from an air sample. Rather, it is a test of the BAIID’s ability to detect whether an air sample containing alcohol has been filtered to remove the alcohol.

Accordingly, this notice proposes to provide additional flexibility in the materials that may be used in conducting this test. It proposes to provide instead, “Prepare a 1 to 2 inch diameter 3 to 5 inches long tube loosely packed with an active absorbent material. Use porous plugs (such as cotton) to retain the absorbent material in the tube.”

Test 10. Restart of Stalled Motor Vehicle

In the *Federal Register* notice published on May 8, 2013, Test 10 in the Model Specifications stated that a restart without breath sample in less than 3 minutes should allow the vehicle to start, but then it stated, “Attempt to restart the ignition without a breath sample within 3 minutes ... the vehicle must not start.” (78 FR 26865) The agency received comments, stating that these provisions appear contradictory and are confusing.

This notice proposes to correct the Model Specifications as follows: “Attempt to restart the engine without a breath sample in less than 3 minutes – the vehicle must start. Turn off the engine. Attempt to restart the engine without a breath sample 3 minutes or more after turning off the engine – the vehicle must not start.” If trying to start the vehicle after 3 minutes, a breath sample would need to be provided.

Test 14. Radiofrequency Interference/Electromagnetic Interference

Test 14 of the Model Specifications is entitled “Radiofrequency Interference (RFI)/Electromagnetic Interference (EMI)”. It contains a series of tests to evaluate BAIID for radiofrequency and electromagnetic immunity and compatibility. These tests are based on standards that are commonly used in the industry for motor vehicles and motor vehicle equipment, including Society of Automotive Engineers (SAE) Surface Vehicle Standard J1113 series, Required Function Performance Status, as defined in Surface Vehicle Standard J1113-1 for Class C devices and the International Special Committee on Radio Interference

(CISPR), Subcommittee of International Electrotechnical Committee (IEC), CISPR 25.

In conducting its assessment of the RFI/EMI tests, NHTSA determined that some aspects of Test 14 required correction and/or clarification. This notice proposes a number of revisions to account for these issues.

a. Drive and Standby Modes

The Model Specifications provide that Test 14 “must be performed while the BAIID is in the drive and standby modes.” During our assessment, we observed no differences between the RFI/EMC test results obtained in standby (ready to blow) mode and the results obtained in drive mode. Therefore, testing in Drive mode appears to be unnecessary. For this reason, NHTSA proposes to revise the Model Specifications to provide that Test 14 need only “be performed in standby mode.”

b. Frequency range of Tests 14c. and 14f.

The Model Specifications specifies the frequency range for some, but not all, tests to be performed under Test 14. In particular, the Model Specifications did not specify the frequency range for Test 14c (J1113-4 2004-08 Conducted Immunity – Bulk Current Injection (BCI) Method). Consistent with SAE Standards, this notice proposes to add that Test 14c should be performed from 1 MHz to 400 MHz.

Normally, the frequency ranges of Test 14c and Test 14f (J1113-21 2005-10 Immunity to Electromagnetic Fields) are run as companion tests. Together, they cover the entire frequency range of a device being tested. Accordingly, consistent with SAE Standards, this notice proposes to revise the Model Specification to provide that Test 14f should be performed from 400 MHz to 18 GHz. Combined with Test 14c, the entire frequency range of 1 MHz to 18 GHz would be covered.

c. Clarification of Conditions under Test 14d, Pulse 5.

The Model Specifications identified the final pulse under Test 14d as Pulse 5, but this pulse should have been identified as Pulse 5a. This notice proposes to make that correction. The parameters of the test will remain unchanged. It should continue to be conducted at Level 1, with 87 volts. As before, to conform to the test, a BAIID must achieve Status IV (no damage to function after disturbance is removed; dealer action may be required to return the function to normal operation after the disturbance is removed, e.g., battery reset).

The agency encourages interested parties to carefully review this notice and the proposed revisions to the Model Specifications that are described herein, and to submit comments in the manner identified in the Addresses above.

TECHICAL CORRECTIONS TO TEXT OF MODEL SPECIFICATIONS

For convenience and clarity, the full text of the Tests that are corrected are included below.

1. In the *Federal Register* of May 8, 2013, on page 26864, in column 3, Test 9e is corrected to read as follows:

Test 9. Tampering and Circumvention

* * *

- e. Cooled 0.032 BrAC sample.* Attach a 4 foot long tygon tube of 3/8 inch inside diameter which has been cooled to ice water temperature (0°C/32°F) to the inlet of the BAIID, then test at 0.032 BrAC. The vehicle must not start.
2. In the *Federal Register* of May 8, 2013, on page 26865, in column 1, the title for Test 11 is corrected to read as follows:

Test 11. Altitude

3. In the *Federal Register* of May 8, 2013, on page 26866, in column 1, Test 16 is corrected to read as follows:

Test 16. Data Integrity and Format

Complete all other tests before performing Test 16. Download the data from the interlock data logger and compare it to the data recorded for each test. Disconnect, then reconnect the power to the interlock data logger. Download the data again and compare it to the first data download. No lost or corrupted data is allowed. Check the data format (i.e., date and time of event) to verify conformance with the sample format in Appendix B.

PROPOSED CHANGES TO TEXT OF MODEL SPECIFICATIONS

1. NHTSA proposes to revise the Model Specifications published in the *Federal Register* of May 8, 2013, on page 26864, in column 1, Test 8 to read as follows:

Test 8. Retest

If a BAIID includes a feature designed to detect whether the vehicle is moving, conduct Test 8 using a motor vehicle. If a BAIID does not include a feature designed to detect whether the vehicle is moving, conduct Test 8 using a motor vehicle or a bench test set-up that simulates the relevant functions of a motor vehicle.

- a. Within an interval of 5 to 7 minutes after a vehicle successfully starts, using a 0.000 g/dL BrAC test sample, and while the engine is still running, the BAIID must indicate that a second breath sample is required. Conduct Test 1b five times. The BAIID must treat this test as a passed retest all 5 times.

b. Within an interval of 5 to 7 minutes after a vehicle successfully starts, using a 0.000 g/dL BrAC test sample, and while the engine is still running, the BAIID must indicate that a second breath sample is required. Conduct Test 1c five times. The BAIID must treat this test as a failed retest and prominently alert the driver.

A failed retest must be identified as an alert condition and flagged on the interlock data logger. A missed retest must be flagged on the interlock data logger.

2. NHTSA proposes to revise the Model Specifications published in the *Federal*

Register of May 8, 2013, on page 26864, in columns 2-3, Test 9d and Test 9f to read as follows:

Test 9. Tampering and Circumvention

* * *

d. *Warmed air sample.* Prepare a 12-ounce insulated cup fitted with a bubble tube inlet and a vent tube (rubber or tygon tubing), attached through a secure lid. Fill the cup with 8 ounces of water warmed to 36°C and attach the lid. Attach the vent tube to the BAIID and pass an air sample of at least 2 liters through the bubble tube into the heated water and thence into the BAIID. The flow rate must not be high enough to cause a mechanical transfer of water to the BAIID. The vehicle must not start.

* * *

f. *Filtered 0.032 BrAC sample.* Prepare a 1 to 2 inch diameter 3 to 5 inches long tube loosely packed with an active absorbent material. Use porous plugs (such as cotton) to retain the absorbent material in the tube. Pack the tube so that a person can easily blow 2 liters of air through the assembly within 5 seconds. Test the absorbent by passing a 2 liter 0.032 BrAC sample through the assembly within 5 seconds. If the air passing out

of the BAID is found to have a concentration of 0.006 BrAC or less, prepare 5 tubes packed in the same manner, fit separately to the BAID and test at 0.032 BrAC. The vehicle must not start.

* * *

4. NHTSA proposes to revise the Model Specifications published in the *Federal Register* of May 8, 2013, on page 26865, in column 1, Test 10 to read as follows:

Test 10. Restart of Stalled Motor Vehicle

Conduct Test 10 using a motor vehicle.

Using a 0.000 g/dL BrAC sample, turn on the engine. Turn off the engine.

Attempt to restart the ignition without a breath sample in less than 3 minutes – the vehicle must start. Turn off the engine. Attempt to restart the engine without a breath sample 3 minutes or more after turning off the engine – the vehicle must not start. Conduct Test 10 five times.

5. NHTSA proposes to revise Test 14 of the Model Specifications published in the *Federal Register* of May 8, 2013, beginning on page 26865, in column 1, to read as follows:

Test 14. Radiofrequency Interference (RFI)/Electromagnetic Interference (EMI)

The Society of Automotive Engineers (SAE) Surface Vehicle Standard J1113 series, Required Function Performance Status, as defined in Surface Vehicle Standard J1113-1 for Class C devices (devices essential to the operation or control of the vehicle), and the International Special Committee on Radio Interference (CISPR), Subcommittee of International Electrotechnical Committee (IEC), specifically CISPR 25, will be used to

evaluate BAIIID electromagnetic immunity and compatibility. The test severity levels are specified below. The tests must be performed while the BAIIID is in standby mode.

* * *

- c. J1113-4 2004-08 Conducted immunity, 1 MHz to 400 MHz – Bulk Current Injection (BCI) Method.

Level	Severity (volts, peak to peak)	Status
1	25 to 60	I
2	60 to 80	II
3	80 to 100	III
4	100	IV

- d. J1113-11 2007-06 Immunity to Conducted Transients on Power Leads.

Pulse (12 v sys)	Level	Severity (volts)	Status
1	1	-25	I
	2	-50	II
	3	-75	II
	4	-100	IV
2a	1	25	I
	2	40	II
	3	50	II
	4	75	IV
2b	1	10	I
3a	1	-35	I
	2	-75	II
	3	-112	II
	4	-150	IV
3b	1	25	I
	2	50	II
	3	75	II
	4	100	IV
4	1	-4	I
	2	-5	II
	3	-6	II
	4	-7	IV
5a	1	87	IV

* * *

- f. J1113-21 2005-10 Immunity to Electromagnetic Fields, 400 MHz to 18 GHz.

Severity (V/M)	Status
Up to 60	I

60-80	II
80-100	III
100-150	IV

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(Authority: 23 U.S.C. 403; 49 CFR 1.95; 49 CFR Part 501)

Dated: March 25, 2015.

Jeffrey Michael,

Associate Administrator for the Office of Research and Program Development,

National Highway Traffic Safety Administration.

Billing code 4910-59-P

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